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ABSTRACT

Described are the manner and degree to which responsibility for design and implementation of preservice education programs are shared by public school and university staff, and for the latitude extended to preservice candidates for defining and developing their personal strengths, values, and teaching styles. Increased emphasis is placed on decision making by the candidates. The program began in 1971 as an informal teacher education program between the University of Illinois (Urbana campus) and High School District 214 (includes 8 high schools and nearly 20,000 students). It has since expanded to include other Illinois universities and several elementary school districts that "feed" to High School District 214. The Cooperative Teacher Education Project (CTEP) concept includes inservice education as well. Several methods for data collection have been employed, as well as methods for analysis of these data. The analysis of follow-up data, spring 1973, reveals strikingly different patterns of job taking by CTEP and traditionally trained teachers. Many more CTEP graduates took teaching positions following graduation, generally in highly competitive schools. (Author/EB)

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THE COOPERATIVE TEACHER EDUCATION PROJECT: PRESERVICE OUTCOMES

A Discussion Paper
for
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While the Cooperative Teacher Education Project is characterized by a number of innovative practices and organizational structures for preservice and in-service teacher education, it is particularly unique in the manner and degree to which responsibility for the design and implementation of preservice programs is shared by public school and university staff, and in the latitude extended to preservice candidates for defining and developing their personal strengths, values, and teaching styles. With the shift in both setting and responsibility from university campus to public school, and with increased emphasis upon decision making by candidates, one must ask if differences accrue to the product. CTEP research is addressing such questions in terms of candidate self-concept, patterns for job-taking, valuing and perceived attainment of selected objectives for teacher education, attitudes and beliefs toward education, pupil appraisal of teachers' in-class behaviors, and client (candidates and employers) satisfaction with the program.

The Preservice Program

CTEP began in 1971 as an informal teacher education cooperative between the University of Illinois, (Urbana campus), and High School District 214, (a high school district of eight high schools and nearly 20,000 students in the suburban Chicago area of Arlington Heights). Initially, the project enrolled teacher education students from science, mathematics, English, and social studies. Since that time, it has expanded to include Northern Illinois University, Northeastern Illinois University, and several elementary school districts that "feed" to High School District 214. It has also expanded to include teacher education students, (referred to as "candidates"), from most other subjects commonly taught in high school. Since its inception, over 450 candidates have participated and have been recommended for secondary school certification.

While preservice secondary teacher education has been the most visible part of the project, the CTEP concept includes in-service education and embraces the following major goals:

1. To develop means for involving the total profession at all levels in the design and implementation of curriculum for teacher education and in the establishment of certification procedures.

2. To develop teacher education as a continuous process that blurs traditional distinctions between preservice and in-service education, and that enhances the contribution of each to the other.

3. To develop means by which public schools, universities and governmental agencies can share services and resources for the benefit of teacher education--preservice and in-service--and to advantageously effect the educational program for students in the cooperating schools.

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The preservice facet of CTEP has as its own goal the search for "a program that allows teachers to define and develop personal strengths, values, and teaching styles while gaining professional competencies appropriate to the realities of the schools."

Whether from the University of Illinois or Northern Illinois University, preservice candidates elect CTEP as an alternate over the traditional and more conventional program offered by their respective university. For the U. of I. student, CTEP offers nearly all of the professional credit required for certification (educational psychology excepted), while the traditional program makes it possible for the candidate to either earn comparable credit over several semesters (usually two or three) or to concentrate it into one semester. The situation is similar for NIU. Major contrasts between CTEP and the traditional program (U of I) are--

Traditional	CTEP
1. Candidates are within the public school setting for seven weeks.	1. Candidates are within the public school setting for a full semester.
2. The range of observation and interaction with the school environment is often limited to one school, and that school is assigned.	2. The range for observation and interaction with the school environment extends across eight high schools and the "feeder" junior high schools and elementary schools.
3. Candidates progress directly from a brief period of observation to classroom teaching.	3. Candidates progress gradually through mini-teaching and possibly team teaching, individualized instruction and elementary school experience, to classroom teaching.
4. Professional coursework is completed while on campus and before classroom teaching.	4. Professional study is concurrent with teaching and within the school setting, with public school teachers assuming considerable responsibility for the design, implementation and evaluation of such study.
5. Cooperating teacher, school and subject area are assigned.	5. Candidate selects the environment(s) for extended teaching from a finite though large range of possibilities, but with the benefit of prior observation and with faculty concurrence in the choice.

The CTEP candidate's work and responsibilities, which take him into a wide variety of learning environments at several levels--elementary, junior high school, and high school,--are guided by a set of program "components." These components are described by the following statements which are taken from the "CTEP descriptor" that appears in each candidate's professional placement file. (The placement "descriptor" also indicates whether, in the judgment of the supervisory staff, the candidate has satisfactorily progressed toward the goals appropriate to the component.)

Observation Election. In order to define one's own values, strengths, interests, and teaching style, the candidate has used the opportunities in CTEP to acquaint himself with the wide variety of learning environments and programs in elementary and secondary grades. The candidate has need to reflect on the significance of this variety as it relates to his strengths, interests, and values in order to elect environments for subsequent teaching experiences.

Mini-Teaching. To learn to attend to the needs of individual students and to their responses to curriculum decisions and teaching strategies, the candidate has had opportunity to work with groups of four or five students over an extended period of time.

Elementary and Junior High Teaching. While the candidate may make a professional commitment to another level of instruction, he has had the opportunity to work with the younger student, to gain insight into the total development of a student as a learner, to become aware of the special problems, resources, and techniques used at the various levels of the elementary and junior high school.

Extended Teaching. The candidate has had the opportunity (eight weeks or longer) to practice the craft of teaching on a continuing basis with regularly constituted classes and has been called upon to perform the many duties of a classroom teacher and to participate in the tasks and responsibilities of the school faculty.

Institutional Study. The candidate has acquired general information about the political, legal, and societal nature of the institution of school and has developed a personal perspective through in-depth study of some aspect of this institution.

Subject Seminars. With the help of both university and public school staff, the candidate has sought and shared information about the educational goals, methods, resources related to his major subject area.

Human Relations. Through participation in small interdisciplinary groups, the candidate has had opportunity to develop the attitudes and skills requisite to candid self-appraisal and has had opportunity to help others achieve this goal in a spirit of cooperation.

Professional Evaluation. Throughout this experience, the candidate has been an active partner in evaluating his own professional progress and his strengths and weaknesses and has been encouraged to base professional decisions on this assessment.

In addition, the candidate may have had the opportunity to be involved with other experiences; team teaching, serving as a student representative on the CTEP Planning Committee; working in educational settings not ordinarily a part of the traditional school day program.

The organizational structure of the cooperative requires that each institution commit staff to the cooperative for both the design and implementation of programs. University faculty, ordinarily present in the district for about three days every two weeks (distances between the CTEP campus and the U of I and NIU are 170 miles and 60 miles, respectively), has direct involvement with the in-service activities of the districts. Program planning is the shared responsibility of the university, public schools, and candidates. The tasks of supervision and instruction of candidates are primarily assumed by personnel from the public schools.

The program is basically operated through subject area groupings, but such components as "human relations" and "institutional studies" are interdisciplinary. All candidates, but particularly those in science and mathematics, have involvement with elementary and junior high school students and teachers by either observation, tutoring, teacher's aides, mini-teaching, or choosing to do their "extended teaching" component at that level. Prime responsibility for "mentoring" candidates within a subject field (i.e., English, science, etc.) falls to a public school staff member designated as "subject area coordinator." Additionally, one teacher in each high school building is designated as a "building coordinator" with responsibility for knowing who is involved in a training function in his building at any given time, for what purpose, and for facilitating that activity in a way that is consistent with circumstances unique to the particular building.

Subject area coordinators and building coordinators are released from a portion of their regular teaching day to provide their input. Released time is provided by the universities by means of certificated "interns" who are masters degree candidates holding appointments as teaching assistants at one of the two universities. Most often the "interns" are CTEP "alums."

Possibly one of the most distinctive features of the CTEP preservice program is the opportunity for election, particularly the site(s) and cooperating teachers for the "extended" component. Each candidate is asked at the beginning of CTEP to establish program goals for himself, and to find public school faculty and departments who are willing to work with him in reaching these goals. Assistance in defining these goals in the light of personal strengths and interests, and in searching for facilitating environments for developing these strengths and interests, is provided by the subject area coordinator, and through such components as mini-teaching, human relations, elementary experience, and subject seminars.

Research Methodology

The preservice research is a composite of several relatively independent studies, some completed and some in progress, by several people working over the

last three semesters.[1/] Such a time period allows a relatively large N for study (about 75 CTEP candidates per semester and larger numbers in conventional on-campus programs and student teaching), and is subsequent to CTEP's early history when prime concern was for smoothing out developmental vagaries and for solving the problems of implementing interinstitutional cooperation, communication, and decision making. While the evaluative process for CTEP covers a broad spectrum of interests, including both preservice and in-service goals, as well as organizational questions, the studies here mentioned are selected so as to emphasize the CTEP model for preservice teacher education and to allow contrasts between candidates who chose the CTEP model and the more conventional pattern for the professional education of teachers. Several methods for data collection have been employed, as have methods for the analysis of these data.

Job-taking characteristics have been determined by follow-up questionnaires. Commitment to teaching has been inferred from the patterns of job seeking and job taking by former CTEP and conventional students. Self-concept has been of concern in a number of CTEP studies, and has been described by such instruments as the Personal Orientation Inventory (POI) and the Simpson, Slater, Stake Occupational Characteristics Inventory. Shifts in concern from "self" to pupil is also under study using similar instruments. The degree to which CTEP candidates and student teachers in conventional programs value certain objectives of "competency areas" for teacher education was determined by an instrument devised for that purpose. The same instrument allowed students to report their perceptions of how well they had attained each of these objectives, and to parcel out the source for that attainment across the several CTEP components, or to on-campus courses and student teaching. Another source of data for making comparisons between the CTEP and the conventional model was high school pupil's assessment of teaching behavior as described by the Illinois Teacher Evaluation Questionnaire. Client's satisfaction with the CTEP model and its components was determined by questionnaire and by structured interview with CTEP candidates and alumni, and with public school personnel. The Minnesota Teacher Attitude Inventory and a specially devised survey instrument (Beliefs Regarding Education) were used to assess beliefs and attitudes regarding education. Certain CTEP components (e.g., mini-teaching and the elementary school experience) have been the subject of particular study to determine the effect upon children in the schools, and to sort out their unique contribution to candidates' professional growth. The elementary school component for science teachers, in particular, has been the focus for "naturalistic" research and/or responsive evaluation in order to describe its effect and to confirm or deny its presumed efficacy as a CTEP component.

1/ Contributors to this research include Orrin Gould, Louis J. Rubin and Teressa Sullivan of the University of Illinois, Eldon Scriven from Northern Illinois University, Allen Rydinsky of Eastern Illinois University, Sister Dorothy Hwopek of Youngstown (Ohio) State University, and Berry Weiss of the Office of the (Illinois) Superintendent of Public Instruction. The organizational structure for CTEP, and its evolution, has been the subject for study by Robert Snavely, Loyola University.

Some Findings

The analysis of follow-up data, spring 1973, reveals strikingly different patterns of job taking by CTEP and traditionally trained teachers. For science and mathematics, the proportion of CTEP graduates taking teaching positions the fall following graduation was about twice that for the conventionally trained, and was also far greater than normal in the days of the teacher shortage. The proportions of English and social studies graduates taking jobs were about the same across training models, and were much less than for science and mathematics. For all fields combined--English, mathematics, science and social studies--there were marked differences across training models as to where graduates took teaching jobs. CTEP alums either took jobs in highly competitive schools, or did not take teaching jobs at all. "Conventional" graduates spread themselves in schools ranging from "prestigious" or highly competitive, to the not-so competitive, but generally in geographic areas that are less competitive than the pattern for former CTEP candidates. On the general question of what proportion of teacher education graduates take teaching jobs close upon graduation regardless of teaching field or training model, the 1973 study showed that 47% of the 1972 graduates were teaching the year following graduation, and 56% of the 1971 graduates were teaching by the second year following graduation.

A variety of explanations have been offered for the differences in patterns for job taking across training models. One of these entails concepts of self-actualization and self-acceptance. A study in progress is attempting to determine (1) whether candidates do experience changes in self-actualization and self-acceptance over time, (2) whether there are differences in the degree of change across training models, and (3) what program characteristics are perceived by candidates as being most conducive and retarding to gain. Although the results of that study are not complete, there is evidence (OCI and POI data) to show that there are pre-treatment differences in both self-actualization and self-acceptance between CTEP and "conventional" groups. CTEP candidates begin the program with a greater tendency toward self-actualization (significant differences on the POI scales for Inner-Directed, Self-Actualizing Value, Existentiality, Feeling Reactivity, Self-Acceptance and Capacity for Initmate Contact), but with a greater discrepancy between their concept of self-actual and self-ideal (significant differences on the OCI in correlations between the self-actual and self-ideal scores for Considerateness, Creativeness, Flexibility, Knowledge of Subject Matter, Patience, Persuasiveness, Resourcefulness, Self-Control, and Verbal Fluency.)

Regarding the "valuing" of selected goals or "competency areas" for teacher education, CTEP candidates and students in the conventional program were very similar in their assessments. At the conclusion of their respective programs, students were presented with a list of 20 generalized goals and were asked to "value" each goal on a scale of 0 to 3. They were also asked to use the same scale to indicate their perception of the degree to which they had attained each goal. Nineteen of the 20 goals received a mean "value" score of 2 or above, with the four goals of highest rank and the four of lowest rank being identical across groups. The "competency areas" of highest value included:

2.87 "Responsiveness to individual students in order to set appropriate instructional goals."

2.87 "Ability to 'think and act on your feet' when in the classroom, being able to select from a repetoire of responses of teacher behaviors in order to respond to shifting student needs, interests, and behaviors."

2.84 "Ability to carry on a two-way communication with children who represent a range of ages, interests, and backgrounds."

The generalized goals of lowest value included:

1.39 "Knowledge of the goals, instructional programs and specialized resources for education at grade levels well below (e.g., the elementary school) those at which the teacher customarily works."

2.22 "Understanding of the legal, political, and sociological structure within schools that directly influence the behaviors and choices available to teachers and students in that school."

2.32 "Ability to analyze instructional materials and/or classroom activities in order to identify and evaluate the underlying psychological assumptions."

Mean scores for perceived attainment for each goal were also similar across groups, but with the gap between "value" and "attainment" being slightly less for the CTEP candidates for 18 of the 20 goals. Both groups pointed to the same goal when considering the discrepancy of greatest magnitude between value and attainment, but with the absolute value for that discrepancy being nearly twice as big for the conventional program as for CTEP. The goal in question was "knowledge of community resources that may be called upon in order to diagnose and serve those students who appear to have learning, health, or emotional problems too severe for the teacher to handle independently."

As a last note on perceived attainment of goals, professorial staff in the Department of Secondary Education were considerably less optimistic than students when speculating about students' attainment of the several generalized goals. Teaching assistants in the Department were also less optimistic than students, but consistently saw student attainment in a better light than did professors.

The sources from which students perceived themselves to have attained the goals or "competency areas" was somewhat different across groups. Conventional students attributed most of their attainment to either student teaching, (to the exclusion of nearly all formal course work), or to a "gestalt" of experiences. CTEP candidates gave greatest overall value to the extended teaching component, (fairly analogous to conventional student teaching), but also saw other components as having particular value for attaining specific goals. Additionally, the indication was that some components, particularly mini-teaching and involvement in the elementary schools, were perceived as contributing to goal attainment out of proportion to their rather low cost in time and energy.

One more difference between CTEP candidates and students in the conventional program was revealed by use of the Illinois Teacher Evaluation Questionnaire (ITEQ). That instrument, containing 40 items that are mostly descriptive of teacher behaviors or practices, is designed for use by high school pupils to aid teachers in self-assessment. Possible responses to each item are strongly agree,

agree, disagree, and strongly disagree, but with the preferred or best response being either strongly agree or strongly disagree. The "right" response to an item translates into a score of "4" for that item. The computerized scoring program also yields a best total score of "4," and similar best scores for each of the four factors--"interest," "attitude," "method," and "knowledge." Item scores, total score and factor scores are also reported as deciles, using either student teacher norms or experienced teacher norms.

The ITEQ was extensively used in both CTEP and the conventional program during spring, 1973, being administered to about 8,000 pupils. Analysis of the data, using the Chi-square statistic showed significant differences (either 1% or 5% levels) in total scores and factor scores across training programs, and between each training program and the norm data for experienced teachers. The differences were in favor of conventional student teaching, with experienced teachers coming in second, and CTEP candidates receiving the least favorable pupil ratings. Explanations are being sought, and the study is presently being replicated. The ITEQ items and the present scoring protocol favor a didactic view of teaching, so the search is for instruments that reflect heuristic and philetic values.

In another aspect of the evaluation, CTEP candidates were asked to respond to two instruments assessing beliefs and attitudes toward teaching. The first was the well-known Minnesota Teacher Attitude Inventory, and the second was a short survey questionnaire (Beliefs Regarding Education) specifically devised for the evaluation. The MTAI was administered to 92 CTEP candidates during the first week of the program, and eighteen weeks later at the conclusion of the "extended teaching" component. Responses were compared, using conventional T-tests to determine the significance of differences. Scoring protocol may yield a score from minus 150 to plus 150, with scores at the high end suggesting that the teacher "should be able to maintain a state of harmonious relations with his pupils, characterized by mutual affection and sympathetic understanding." (Cook, Leeds and Callis, 1951.) Low scores imply that the teacher "attempts to dominate the classroom. He may be successful and rule with an iron hand creating an atmosphere of tension, fear and submission; or he may be unsuccessful and become nervous, fearful and distraught in a classroom characterized by frustration, restlessness, inattention, lack of respect, and numerous disciplinary problems." (Cook, Leeds, Callis, 1951.)

Pre- and post-scores were significantly different (42.6 and 25.7, respectively, $p < .001$), the MTAI barometer suggesting that the effects of the CTEP program were about as debilitating as in more conventional programs. Altruism and idealism seemed to dissipate over the CTEP experience, perhaps in favor of a more realistic outlook.

Beliefs Regarding Education involved 20 value judgment items and was administered in the same manner as the MTAI. Eight of the items were in the form of statements to be rated on a ten-point scale. Analysis of the data again showed the tempering effects of reality exposure. For example, the mean dropped from 6.38 on the pre-test to 5.41 on the post-test for the statement, "One poor teacher will harm the child." Similarly, for the statement, "Schools can teach students to think and to make rational decisions," a mean of 6.57 on the first administration fell to 5.95 on the second.

Statements about the ways the CTEP experiences uniquely influence subsequent teaching behaviors are in short supply, but should become increasingly available through such research as that which centered on the elementary school component for the thirteen science candidates during spring semester, 1973. Guiding questions asked (1) do candidates and in-service elementary teachers experience changes in attitude toward the teaching of science that can be ascribed to the component, (2) do the candidates transport elementary school objectives and strategies (ESS) to the high school during their "extended teaching" component, and (3) if there is transport of curriculum ideas across the elementary-secondary boundary, is there a permanence to that transport? Aside from a Q-sort used to assess changes in attitude toward science teaching (Chaney, 1966) (no significant differences), the research style was naturalistic. Data were derived from structured classroom observation, anecdotal records prepared by the researcher and candidates, tape recordings, and conversations with pupils, candidates and in-service teachers. The summary of the data is still in process, but affirmative answers seem assured for the guiding questions.

The last kind of finding was derived from structured interviews with CTEP candidates and alumni, and with public school personnel. Candidates are generally lavish in their praise, but yet see room for improvement in particular components and are inclined to attribute any personal feelings of anxiety or self-doubt to failure by his mentors or designers of the program. Teachers and administrators in the CTEP schools vary in attitude toward the CTEP concept, negative feelings being the strongest among people who have had the least opportunity for input. Negative feelings were often attributable to problems in communication in this relatively sophisticated and complex example of school and university collaboration. Employers also vary in attitude, generally giving CTEP graduates high marks in enthusiasm, openness to new and novel teaching gambits, idealism, autonomy, and tolerance of individual differences in students. On the debit side, CTEP graduates were occasionally judged short in pedagogical technique (methods) and in discipline or classroom control.

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